

WHAT IS CLAIMED IS:

1. ~~An apparatus equipped with a scanner, comprising:
a base unit; and
a scanner unit which can be removably mounted on said
base unit,
wherein said base unit includes at least a part of sheet
transporting mechanism and scanner mounting means for mounting
detachably said scanner unit, and
wherein said scanner unit includes at least reading
means, other part of said sheet transporting mechanism, and
engaging means adapted for engaging said scanner mounting means
for thereby securing said scanner unit onto said base unit.~~
2. ~~An apparatus equipped with a scanner according to
claim 1,
wherein said scanner unit is so implemented as to be
capable of operating as a handy scanner in the state where said
scanner unit has been detached from said base unit.~~
3. ~~An apparatus equipped with a scanner according to
claim 1,
wherein said base unit includes a printer unit.~~
4. ~~An apparatus equipped with a scanner according to
claim 2,
said base unit being of an automatic sheet feeding
type and including a first sheet transporting path extending
substantially vertically, while said scanner unit is of an
automatic sheet feeding type and includes a second sheet
transporting path extending substantially vertically,
wherein said first and second sheet transporting
paths extend substantially in parallel and adjacent to each
other.~~
5. ~~An apparatus equipped with a scanner according to~~

claim 3,

 said base unit being of an automatic sheet feeding type and including a first sheet transporting path extending substantially vertically, while said scanner unit is of an automatic sheet feeding type and includes a second sheet transporting path extending substantially vertically,

 wherein said first and second sheet transporting paths extend substantially in parallel and adjacent to each other.

6. An apparatus equipped with a scanner according to claim 4,

 wherein said second sheet transporting path for said scanner unit is defined by confronting surfaces of said base unit and said scanner unit in the state in which said scanner unit is mounted on said base unit.

7. An apparatus equipped with a scanner according to claim 6,

 further including a pick roller disposed at a location upstream of said second sheet transporting path of said scanner unit as viewed in a sheet transporting direction, and feed rollers disposed at locations downstream of said second sheet transportation path for said scanner unit as viewed in the sheet transporting direction.

8. An apparatus equipped with a scanner according to claim 7,

 wherein said pick roller is made of a material having low hardness,

 said scanner unit including auxiliary rollers which are made of a material having high hardness and disposed at sides of said pick roller, respectively, for the purpose of protecting said pick roller when said scanner unit is used as the handy scanner.

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9. An apparatus equipped with a scanner according to
claim 8,
wherein said auxiliary rollers are disposed at
locations outside of a reading region of said scanner unit.

10. An apparatus equipped with a scanner according to
claim 8,
wherein said auxiliary rollers are disposed in the
vicinity of said pick roller, and
wherein grooves are provided in a surface of said
base unit facing in opposition to said auxiliary rollers.

11. An apparatus equipped with a scanner according to
claim 2,
wherein a mark indicating a reading region is
provided at least on one of a front side portion and a rear side
portion of said scanner unit, and
wherein a mark indicating a reading position is
provided on a lateral side portion of said scanner unit.

12. An apparatus equipped with a scanner according to
claim 2,
wherein a cable for electrically coupling said
scanner unit to said base unit is led out from a location
positioned at a lateral surface of said scanner unit.

13. An apparatus equipped with a scanner according to
claim 2,
wherein a cable for electrically coupling said base
unit to said scanner unit is led out from a location positioned
at a lower portion of a lateral surface of said base unit.

14. An apparatus equipped with a scanner according to
claim 1,
wherein the sheet transporting mechanism for said
scanner unit includes at least a feed roller so that said scanner unit can

operate as a handy scanner of a running type by using said feed roller.

15 An apparatus equipped with a scanner according to claim 1, wherein the sheet transporting mechanism for said scanner unit includes a driving motor so that said scanner unit can operate as a handy scanner of an automatically running type by using said driving motor.

16. An apparatus equipped with a scanner according to claim 1,

wherein the sheet transporting mechanism for said scanner unit includes feed rollers and a driving motor for driving said feed rollers so that said scanner unit can operate as a handy scanner of an automatically running type by using said feed rollers.

17. An apparatus equipped with a scanner according to claim 2,

wherein the sheet transporting mechanism for said scanner unit includes feed rollers and a driving motor for driving said feed rollers so that said scanner unit can operate as a handy scanner of an automatically running type by using said feed rollers.

18. An apparatus equipped with a scanner according to claim 1,

said base unit including a printer unit,
wherein a sheet transporting mechanism of said printer unit includes a feed roller and a driving motor for driving said feed roller, and

wherein a sheet transporting mechanism for said scanner unit includes a sheet transporting roller and an encoder for detecting an amount of rotation of said sheet transporting roller so that said scanner unit can be operated as a manual type handy scanner.

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19. An apparatus equipped with a scanner according to
claim 1,

wherein either one of engaging portions of said base unit and said scanner unit is constituted by a pivotal shaft for allowing said scanner unit to rotate frontwards, while the other engaging portion is implemented as a groove or alternatively as a recess for receiving and holding snugly said pivotal shaft.

20. An apparatus equipped with a scanner according to
claim 2.

wherein either one of engaging portions of said base unit and said scanner unit is constituted by a pivotal shaft for allowing said scanner unit to rotate frontwards, while the other engaging portion is implemented as a groove or alternatively as a recess for receiving and holding snugly said pivotal shaft.

21. An apparatus equipped with a scanner according to
claim 19,

lock means including a claw and a projecting member adapted to engage said claw for thereby locking said scanner unit in the state mounted on said base unit.

22. An apparatus equipped with a scanner according to
claim 19,

further comprising:
rotation limiting stopper means for preventing said scanner unit from swinging excessively frontwards upon detachment of said scanner unit from said base unit.

23. An apparatus equipped with a scanner according to claim 19,

further comprising:

deviation preventing stopper means for preventing said scanner unit from displacing upwardly in the state in which said scanner unit is mounted on said base unit.

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24.

An apparatus equipped with a scanner according to claim 1,

further comprising:

sheet feeding means formed in a wedge-like shape as viewed in a vertical section by a pair of sheet guides disposed in opposition to each other so that a space defined between said pair of sheet guides becomes gradually narrower toward a sheet withdrawal port; and

offset means provided for at least one of said paired sheet guides for limiting stepwise moving of the sheet toward said sheet withdrawal port.

25.

An apparatus equipped with a scanner according to claim 2,

further comprising:

sheet feeding means formed in a wedge-like shape as viewed in a vertical section by a pair of sheet guides disposed in opposition to each other so that a space defined between said pair of sheet guides becomes gradually narrower toward a sheet withdrawal port; and

offset means provided for at least one of said paired sheet guides for limiting stepwise moving of the sheet toward said sheet withdrawal port.

26 An apparatus equipped with a scanner, comprising:

a base unit; and

a scanner unit which can be removably mounted on said base unit,

wherein said base unit includes at least a part of sheet transporting mechanism and scanner mounting means for mounting detachably said scanner unit, and

wherein said scanner unit includes at least reading

means, engaging portion for engaging said scanner mounting means for there by securing said scanner unit onto said basic unit and driving motor which is used for said sheet transporting mechanism when said scanner unit mounts on said base unit, and said driving motor is further used for running said scanner unit when said scanner unit is further used for running said scanner unit when said scanner unit is detached from said base unit and operas as a handy scanner.

27. An apparatus equipped with a scanner according to
claim 26,
wherein said base unit includes a printer unit.

28. An apparatus equipped with a scanner according to
claim 27,
said base unit being of an automatic sheet feeding
type and including a first sheet transporting path extending
substantially vertically, while said scanner unit is of an
automatic sheet feeding type and includes a second sheet
transporting path extending substantially vertically,
wherein said first and second sheet transporting
paths extend substantially in parallel and adjacent to each
other.

29. An apparatus equipped with a scanner according to
claim 26,
said base unit being of an automatic sheet feeding
type and including a first sheet transporting path extending
substantially vertically, while said scanner unit is of an
automatic sheet feeding type and includes a second sheet
transporting path extending substantially vertically,
wherein said first and second sheet transporting
paths extend substantially in parallel and adjacent to each
other.
wherein said second sheet transporting path for said
scanner unit is defined by confronting surfaces of said base
unit and said scanner unit in the state in which said scanner

unit is mounted on said base unit.

30. An apparatus equipped with a scanner according to
claim 26,

wherein a cable for electrically coupling said base
unit to said scanner unit is led out from a location positioned
at a lower portion of a lateral surface of said base unit.

31. An apparatus equipped with a scanner according to
claim 26,

wherein the sheet transporting mechanism for said
scanner unit includes feed rollers and a driving motor for
driving said feed rollers so that said scanner unit can operate
as a handy scanner of an automatically running type by using
said feed rollers.

32. An apparatus equipped with a scanner according to
claim 26,

said base unit including a printer unit,
wherein a sheet transporting mechanism of said
printer unit includes a feed roller and a driving motor for
driving said feed roller, and

wherein a sheet transporting mechanism for said
scanner unit includes a sheet transporting roller and an
encoder for detecting an amount of rotation of said sheet
transporting roller so that said scanner unit can be operated
as a manual type handy scanner.

33. An apparatus equipped with a scanner according to
claim 26,

wherein either one of engaging portions of said base
unit and said scanner unit is constituted by a pivotal shaft
for allowing said scanner unit to rotate frontwards, while the
other engaging portion is implemented as a groove or
alternatively as a recess for receiving and holding snugly said

pivotal shaft.

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 A_{44}^{add} $A_4 \rangle$
 A_{66}^{add} $A_6 \rangle$
 A_{99}^{add} $B_9 \rangle$
 A_{10}^{add} $C_{10} \rangle$